PROCEEDINGS OF THE BROWN COUNTY PLANNING, DEVELOPMENT & TRANSPORTATION COMMITTEE

Pursuant to Section 19.84 Wis. Stats., a regular meeting of the **Brown County Planning, Development & Transportation Committee** was held on Monday, November 23, 2009 in Room 161 of the AG & Extension Center, 1150 Bellevue Street, Green Bay, WI

Present: Norb Dantinne, Bernie Erickson, Mike Fleck, Dave Kaster
Excused: Dan Haefs
Also Present: Judy Knudsen, Chuck Larscheid, Tom Miller
Supervisor Jack Krueger, County Executive Tom Hinz

I. **Call Meeting to Order:**
The Meeting called to order by Chairman Bernie Erickson at 6:00 p.m.

II. **Approve/Modify Agenda:**
- Delete 8a
- Move forward 18 & 19 before Closed Session

Motion made by Supervisor Fleck and seconded by Supervisor Kaster to approve the agenda as modified. MOTION APPROVED UNANIMOUSLY

III. **Approve/Modify Minutes of Regular Meeting of October 26, 2009:**

Motion made by Supervisor Dantinne and seconded by Supervisor Fleck to approve. MOTION APPROVED UNANIMOUSLY

1. **Review Minutes of:**
   a. **Lower Fox River & Green Bay Shoreline Waterfront Redevelopment Steering Committee (November 11, 2009)**

   Motion made by Supervisor Dantinne and seconded by Supervisor Fleck to receive and place on file.
   MOTION APPROVED UNANIMOUSLY

   b. **Solid Waste Board (September 21, 2009)**
   Supervisor Kaster questioned #10 of the Solid Waste Board minutes of 10/21/09 related to the purchase of a scale window for the Transfer Station. Chuck Larscheid explained that a scale operator had been experiencing problems associated with carpal tunnel syndrome. On the advice of Brown County Risk Management and the Brown County Occupational Nurse, an automatic window was installed at a cost of $4,000.

   Motion made by Supervisor Fleck and seconded by Supervisor Dantinne to receive and place on file.
   MOTION APPROVED UNANIMOUSLY

UW-Extension:

2. **Budget Status Financial Report for September 30, 2009:**

Motion made by Supervisor Dantinne and seconded by Supervisor Fleck to receive and place on file. MOTION APPROVED UNANIMOUSLY

3. **Director's Report:**
Judy Knudsen distributed a brochure related to invasive species explaining that the goal of this program is to maintain plant biodiversity through the control of various invasive species. Examples are garlic mustard, buckthorn, purple loosestrife, phragmites, Japanese Beetles, etc. (Please see attached for details)

Also distributed was a handout describing the Brown County 4-H SET (science, engineering, and technology) Program. The SET Club is working to build robots, learn GPS technology, and are participating in a GIS service learning project that will benefit the community.

Also included in the brochure is information regarding a vegetable garden program, a health food choice program, along with information related to a USDA food security survey showing that in 2008 85.4% of US households were food secure, with the remaining 14.6% food insecure. Results of the 2009 survey will be distributed in the spring of 2010.

Knudsen also reported that the UW-Extension has a new program underway working with farmers who are in financial need.

Motion made by Supervisor Dantinne and seconded by Supervisor Kaster to receive and place on file. MOTION APPROVED UNANIMOUSLY

Port/Solid Waste

4. **Solid Waste Consultant Request for Proposal – Request for Approval:**
Chuck Larscheid reported that the RFP for a Solid Waste Consultant was approved by the Solid Waste Board on 11/16/09. After approval by this committee, it will move on to the County Board. The purpose of the RFP is to procure a firm to provide solid waste consulting services to the Port & Solid Waste Department for an initial 3 year term. Qualifications were highlighted. RFP responses are due to the Purchasing Department by January 19, 2010 with a final selection and award contract set for February 8, 2010.

Motion made by Supervisor Dantinne and seconded by Supervisor Kaster to approve. MOTION APPROVED UNANIMOUSLY

5. **Solid Waste Area Budget Status Financial Report for September 30, 2009:**
Chuck Larscheid reported that both the Solid Waste and Port budgets are in line for this time of year.

Motion made by Supervisor Dantinne and seconded by Supervisor Fleck to receive and place on file. MOTION APPROVED UNANIMOUSLY

6. **Port Area Budget Status Financial Report for September 30, 2009:**

Motion made by Supervisor Fleck and seconded by Supervisor Dantinne to receive and place on file. MOTION APPROVED UNANIMOUSLY

7. **Director's Report:**
Chuck Larscheid highlighted the following activities during the last reporting period:

- South Landfill Schedule – In 2002 a plan was made to combine landfill and recycling forces with Outagamie and Winnebago Counties for a 28 year period. Brown County is on line to begin in 2020. A schedule has been developed as follows:
  2016 – Develop a site plan for the next landfill
  2017 - Revise and submit a new plan of operation
  2018 – Start excavation and site work
  2019 – Install plastic and clay liner
  2020 - Get license and begin operation
  Larscheid stated that dollars have been collected to begin and close Phase I, to purchase land and to do appraisals.

- Oneida Gasification Project – Oneida has approached Brown County about using waste at the Transfer Station to produce electricity. The County has been working with Oneida to assist in getting to the point where they can submit a grant to the State for funding and a letter of intent has been submitted to the Oneida Tribe. It is anticipated Brown County could benefit from the project by a reduced fee on waste disposal or payment for landfill gas. The Purchasing Department and the Corporation Counsel will be negotiating with the Oneida Seven Generations Corporation (OSGC) in regard to using Brown County waste for the project.

- Port Department – Finance Department is working on issues with unrestricted cash accounts which were combined with the Solid Waste Department.

- Hazardous Household Waste Regional Agreement with Winnebago County - In the year 2010 Winnebago County will scale up their collection program and Brown County will get the waste. A cost, plus 40% profit will be charged. If both Winnebago and Outagamie Counties scale up their programs, Brown County could hire a Household Hazardous Waste Aid to cover both these sites. With just Winnebago County, it is anticipated a temporary labor supplier would be hired through a budget transfer.

- Great Lakes Restoration Initiative – Through this initiative, there is a possibility that grants may be available for CAT and Renard Island restoration.

- Port Tonnage – A reduction of 14% is reported from 2008, with 20% fewer ships entering the port seen as due to economy, rather than low water.

Motion made by Supervisor Fleck and seconded by Supervisor Dantinne to receive and place on file. MOTION APPROVED UNANIMOUSLY

Highway/Planning Commission:

8. **Updates on CTH GV (standing item).**
Progress through 11/23/09 was reviewed as identified in packet material.

Motion made by Supervisor Dantinne and seconded by Supervisor Fleck to receive and place on file. MOTION APPROVED UNANIMOUSLY

a. **Road Repair Update on GV with possible action: Deleted**

Motion made by Supervisor Fleck and seconded by Supervisor Dantinne to suspend the rules and take #'s 9, 10, 11, 12, & 13 together.
MOTION APPROVED UNANIMOUSLY

Planning & Land Services:

9. ***Planning Commission*** **– Budget Status Financial Report for September 30, 2009**
10. ***Property Listing*** **- Budget Status Financial Report for September 30, 2009:**
11. ***Zoning*** **- Budget Status Financial Report for September 30, 2009:**

Highway:

12. **Budget to Actual Financial Reports for October, 2009:**

Register of Deeds:

13. **Budget Status Financial Report for September 30, 2009:**

Airport:

14. **Budget Status Financial Report for September 30 2009:**

Motion made by Supervisor Dantinne and seconded by Supervisor Kaster to receive and place on file. MOTION APPROVED UNANIMOUSLY

15. **Director's Report:**
Tom Miller reported that passenger traffic, although overall less than this time last year, is 18% up for Thanksgiving week over 2008.

FAA will be announcing their small community development grants by mid-December. Austin Straubel has applied for a grant to develop air passenger service to the west.

The web site has been updated to allow for booking of reservations and direct purchase of tickets through the Austin Straubel Airport.

The stimulus project has been completed except for a few landscaping items.

Motion made by Supervisor Dantinne and seconded by Supervisor Fleck to receive and place on file. MOTION APPROVED UNANIMOUSLY

16. **Food & Beverage Concessions Request for Proposals – Request for Approval:**

An RFP for food and beverage concessions at the airport was reviewed. Proposals are due by February 15, 2010. This is a 15 year contract, with the present one expiring 4/30/2010. This will go on to the County Board for approval.

Motion made by Supervisor Dantinne and seconded by Supervisor Fleck to approve. MOTION APPROVED UNANIMOUSLY

(#'s 18 & 19 taken next on the agenda)

17. **A closed session pursuant to Sec 19.895 (1)(e) Wis. Stats., for the purpose of deliberating the purchasing of public properties whenever competitive or bargaining reasons require a closed session:**

Motion made by Supervisor Erickson and seconded by Supervisor Dantinne to enter into closed session at 7:20. Roll Call.
Present: Dantinne, Erickson, Fleck, Kaster
Excused: Haefs
MOTION APPROVED UNANIMOUSLY

Recording Secretary excused at 7:25 p.m.

Motion made by Supervisor Dantinne and seconded by Supervisor Kaster to return to regular order of business. Roll Call.
Present: Dantinne, Erickson, Fleck, Kaster
Excused: Haefs
MOTION APPROVED UNANIMOUSLY

Motion made by Supervisor Dantinne and seconded by Supervisor Fleck to approve $525,000 purchase at airport over a two year period.
MOTION APPROVED UNANIMOUSLY

Land Information Office – No agenda items

18. **Audit of Bills:**

Motion made by Supervisor Fleck and seconded by Supervisor Kaster to approve payment of bills. MOTION APPROVED UNANIMOUSLY

19. **Such Other Matters as Authorized by Law:** None

Motion made by Supervisor Fleck and seconded by Supervisor Dantinne to adjourn at 8:00 p.m. MOTION APPROVED UNANIMOUSLY

Respectfully submitted,

Rae G. Knippel
Recording Secretary

University of Wisconsin-Extension

UW Extension
Cooperative Extension

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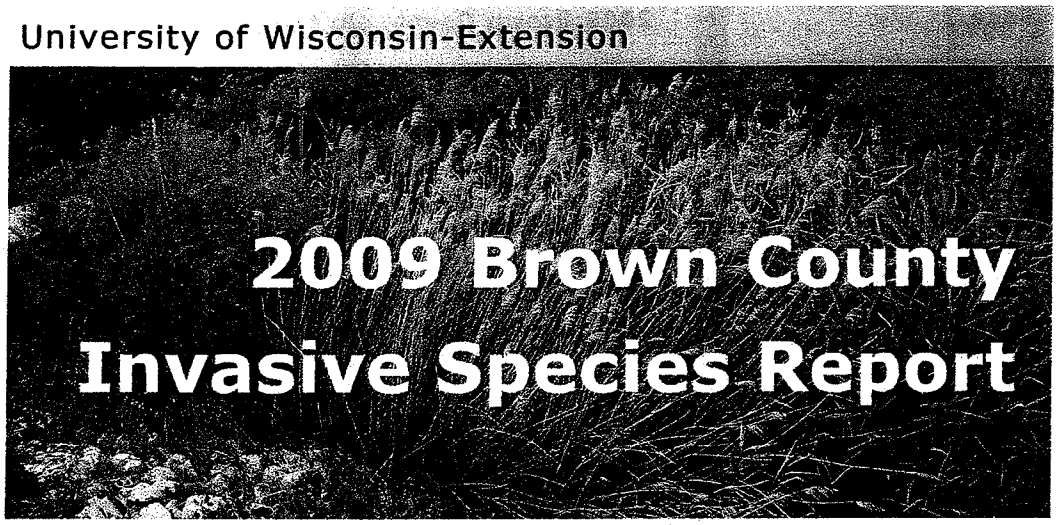


2009 Brown County Invasive Species Report

Inside this issue:

Invasive Species Overview

By Kevin Hendricksen, Brown County Invasive Species Team Coordinator and Ben Libal, Brown County Invasive Species Aide

The main goal of the Brown County UW-Extension Invasive Species Program is to help maintain plant biodiversity. We do this through the control of invasive species. Invasive species are usually from other geographic regions and they are capable of growing and reproducing in natural areas, replacing native plants. By controlling invasives, we hope to favor native plants, allowing them to re-establish their diverse plant communities and the other organisms that depend on them.

Our program accomplished several objectives in the spring and summer of 2009. One of the more significant of these was the control of garlic mustard at 36 sites throughout Brown County. We now know of a total of 55 sites where garlic mustard is present and many of them are close to high-quality natural areas where the plant's spread is being effectively prevented. Several sites are very small – only a few square feet – where the plant is being "nipped in the bud." This year, we also worked with alternative methods of control including cutting the garlic mustard in early flower, spraying the garlic mustard while bolting on low quality sites, and a large herbicide trial was established through UW Madison in the Bay Beach Wildlife Sanctuary.

In 2009, we sprayed all the Phragmites that could be seen from the road in the townships of New Denmark, Glenmore, Morrison, Wrightstown, Ledgeview, Rockland, Lawrence, Eaton and Holland, except for one or two clones per township that were too large to spray easily.

We also worked this year with the control of buckthorn (both common and glossy) and honeysuckle. This was primarily done in Lost Dauphin Park, Pulaski, and in the Baird Creek Parkway.

The Invasive Species Program addressed one major insect threat. We put out 23 Japanese beetle traps to monitor their population in Green Bay. Unfortunately, the beetles are spreading and a large population was found in 2007 in Suamico.

This summer we did not continue our botanical study of an area near St. Norbert College's athletic fields in De Pere in which we can see remnants of prairie or savannah vegetation because we were short handed and we did not secure funds to allow us to work there. With the help of Dr. James Hodgson a Biology professor at St. Norbert, we hope to be able to remove invasive species from the area in the future and restore it to its previous condition.

On August 3, 2009 Linda Filo and Megan Harvey (Baird Creek Parkway Interns), with some help from Kevin Hendricksen, did a botanical survey of a remnant prairie adjacent to Lost Dauphin Park

Continued on page 2...

By controlling invasives, we hope to favor native plants, allowing them to re-establish their diverse plant communities and the other organisms that depend on them.

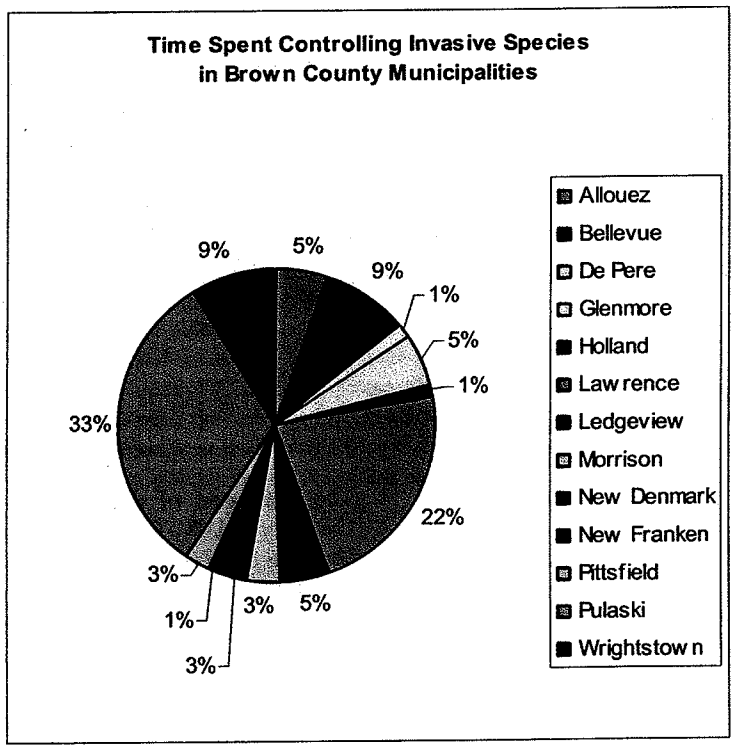
Invasive Species... *(continued from page 1)*

in Lawrence Township. The prairie is owned privately but the township has shown some interest in buying part of the property to expand the area of Lost Dauphin Park. We were hoping that showing that the area is unique botanically would encourage the township to buy and protect it.

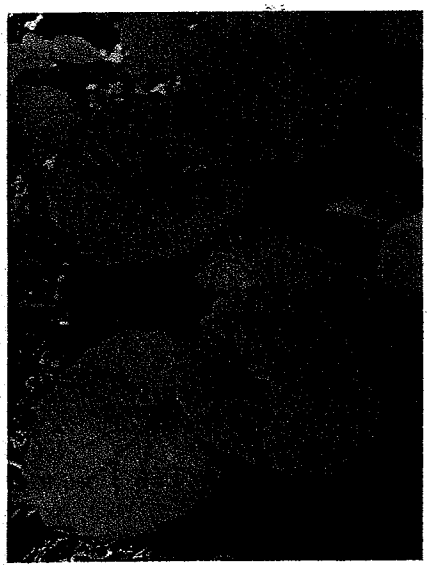
A species list was made and the coefficient of conservatism was calculated to show how ecologically valuable the prairie is. The coefficient of conservatism was 31.60 and according to the Pleasant Valley Conservancy and an assessment by Michigan workers a coefficient of conservatism of 35 is considered floristically important for the state.

Native prairies are exceedingly rare this far north and east in Wisconsin, especially in a county as densely populated as Brown. For all these reasons, the recommendation for Lawrence Township is that they acquire this property if they are able.

In addition, we continued to fence Canada yew plants that we find in Pulaski to protect them from deer. Canada yew is listed as a species of concern in Wisconsin.



Garlic Mustard Found in 55 Sites



Garlic mustard - first year rosette stage

Garlic mustard (*Alliaria petiolata*) is being seen as a larger problem in Brown County than it has in the past. This is partly because the plant is spreading, and partly because we are constantly finding more infestations. The problem has not, however, reached the severity here that is has in some other places in Wisconsin. Garlic mustard is probably the most important plant we work with in this program because it is a major threat to woodlands and at the same time it is found in a small enough area so that we can address it. Our goal in controlling this plant is to keep it from producing seed until we have exhausted the seed bank.

There are now 55 sites where we have found garlic mustard growing. The largest populations are at the Bay Beach Wildlife Sanctuary, Little Rapids in Lawrence, Lost Dauphin Park in Lawrence and Whistling Wind Road in De Pere. This year we controlled the garlic mustard in 36 sites, which means that almost all the sites we have worked on in the recent past were controlled this year as well.

Our most important method of control is to spray garlic mustard in the fall with glyphosate after the native vegetation has gone dormant, but the garlic mustard is still growing. To do this, we need air temperatures above 50 degrees F. It is preferable, where possible, to spray garlic mustard while it is still in the first year rosette stage. After that, it is harder to achieve control without damaging native vegetation.

Continued on page 3...

Garlic Mustard... *(continued from page 2)*

When controlling garlic mustard, we treat the small sites first to keep them from getting any larger. Afterward, larger sites are addressed, and they are attacked from the edges to prevent spread.

Of the largest sites, Lost Dauphin Park in Lawrence is given highest priority because garlic mustard has been picked and sprayed there for the longest time in addition to the control of buckthorn and honeysuckle. One year of seed production would undo countless hours of spraying and pulling, and there is a good population of native plants there and getting better each year. This is the eighth year of nearly complete control of garlic mustard in Lost Dauphin Park and the plants are still coming up, but considerably farther apart than before.

In late May and June, garlic mustard missed by spraying is pulled by hand. Clearly, a fall spraying significantly reduces the amount that needs to be pulled. Pulling involves going to a site and hand removing all second-year plants and placing them in a garbage bag and land filling the bags.

In 2007, a section of Lost Dauphin that was covered in garlic mustard, buckthorn and black locusts was cut and converted to lawn. While lawns are not highly desirable ecologically, this was probably an improvement in this case and will certainly save us time in the future. The head of the Park Board in Lawrence, Adam Gildemick, expressed interest in planting prairie on this site. I was supportive, but suggested waiting and mowing a few more years to let the garlic mustard and the black locusts die out. In 2008, another area that had been dominated by boxelders, buckthorn and garlic mustard was cut down and is now bare, but will be planted to savanna species either this fall or next.

While trying to suppress garlic mustard, we must remember that no method is 100 percent effective. Herbicide applications are only partially successful. Additionally, after pulling garlic mustard, especially when it is still in flower, anything that was not pulled out by the roots will re-sprout and may set seed. For these reasons, monitoring of our work is an essential aspect of the project.

We have been fortunate that Mark Renz from UW Madison and Vijai Pandian continued an herbicide trial in the Wildlife Sanctuary for the control of garlic mustard. The trial was established in the spring of 2007 and is being continued and refined presently.

We also tried cutting the garlic mustard at the soil level with a weed whip while it was in early flower. In order to be effective, the garlic mustard must be cut off at the soil surface, as low as possible. If any stem is left, the plants grow back.

In this project, we are trying to move toward using commercial applicators to control garlic mustard on larger sites. Last fall for example, we had Dave Doering from Canadeo Lawn Care spray the garlic mustard in Pulaski, Optimist Park in Allouez, and Baird Creek. The Town of Lawrence sprayed the garlic mustard in Lost Dauphin Park. Our role was simply to pick the garlic mustard missed in these sites. As more cities and townships see the need to control their invasive species, we hope our program will be freed up to do other things like restore native plants on the sites where we have been controlling invasive species and to do more scouting to find new invasive species and prevent their spread. We are hoping that some more entities will be willing to pay to have commercial spraying done in the future, such as the City of Green Bay, Heritage Hill, the Wildlife Sanctuary and private landowners. We hope to be able to pay for a few more sites out of our budget. Handling things in this way should allow us to cover more ground with more certainty and help avoid pulling so much garlic mustard in the spring (very labor intensive).

We are finding that the area of garlic mustard infestation is becoming larger than our project can effectively address with the manpower at hand and the time of year in which we work. For this reason, we were not able to control the garlic mustard at some of the sites in 2009. Again, we hope that in the future, if more landowners and other entities take responsibility for the control of garlic mustard on their lands, and if we make use of commercial applicators, we can eventually achieve control of garlic mustard in Brown County.

The field trials being done by Vijai Pandian and Mark Renz are showing that spring spraying garlic mustard with glyphosate or Escort while the plants are bolting, is very effective at killing garlic mustard. An advantage of spring spraying is that rosettes are killed as well as seedlings, effectively doing two years of work at once. The problem is, native plants can be killed at the same time. Perhaps Escort could be used and native grasses planted, to have something native growing in the site and to hold the soil and prevent soil erosion.

Mark Renz, UW-Madison, praying garlic mustard at Bay Beach Wildlife Sanctuary

The Daunting Task of Controlling Buckthorn

The two species of buckthorn -- common buckthorn (*Rhamnus catharticus*) and glossy buckthorn (*Thamnus frangula*) -- are a big problem in Brown County, where they are invading high-quality woodlands and out-competing native vegetation. They are widespread and their suppression in the county overall is out of reach of this program at its current size. In order to address the problem, it seems that individual landowners need to be educated on the reasons the plant needs to be suppressed and methods of suppression. This consciousness-raising could be part of our program.

In 2009 we concentrated on the buckthorn and honeysuckle growing in Lawrence, specifically in Lost Dauphin Park, in the Baird Creek Parkway along Morrow Street, and on the Moore property. We also cut honeysuckle and prickly ash in Pulaski to improve access for spraying and pulling garlic mustard. For the most part, we used a chain saw and treated the cut stumps with 20% glyphosate. We anticipate that the fall spraying season will allow us to control new growth in areas we have cut in the past.

After the seed-producing trees are removed from a buckthorn-infested site, very often in subsequent years the area becomes covered with buckthorn seedlings. The prospect of having to cut all these seedlings is daunting. These seedlings can be sprayed with 2% glyphosate in October after most of the native plants are dormant. In Lost Dauphin Park, Green Isle Park and parts of the Baird Park Greenway, this has been very effective and will be done again this fall in Green Isle Park and other sites, time permitting.

Berries of glossy buckthorn

Purple Loosestrife Biocontrol a Success

Purple loosestrife (*Lythrum salicaria*) has been a large problem in Brown County, especially in the areas closest to the Fox River, Duck Creek and the East River. In the past, the attack strategy included spraying the outlying areas and releasing beetles in the core, more dense areas. The releasing of Galerucella beetles as a bio-control has proven very effective as well as economical, and a better long-term solution. Spraying chemicals, on the other hand, is expensive, time consuming, and doesn't result in 100% kill. For these reasons, the release of beetles has been emphasized over chemical control.

In 2009 we did not release any beetles for bio-control of purple loosestrife. The beetles have been widely distributed in Brown County through our program and purple loosestrife, while still very visible, does not seem to be outcompeting native vegetation anymore and our time seemed better spent working with garlic mustard.

In our opinion, the bio-control of purple loosestrife has been a great success. Our satisfaction is, however, tempered with the knowledge that phragmites, another invasive plant is taking over many of the sites that purple loosestrife previously occupied and is probably a greater threat to biodiversity.

Galerucella beetle and feeding damage

Phragmites Invading our Wetlands

Phragmites (*Phragmites australis*) is a grass native to all continents except Antarctica. There are forms of the grass that are native to Wisconsin which are not invasive. They co-exist with other native wetland species. There is another form of phragmites which has come in from Europe, which is profoundly invasive, taking over wetlands and completely out-competing native plant species. Phragmites is an especially large problem in Brown County where there are dozens of acres covered with it, especially along the Green Bay shoreline.

Our goal in this project is to limit the spread of phragmites and to control it within certain high value areas. There is far too much to hope to eradicate it. This summer we started spraying in southern Brown County where there is relatively little phragmites and worked our way north.

In 2009, we sprayed all the phragmites that could be seen from the road in the Townships of New Denmark, Glenmore, Morrison, Wrightstown, Ledgeview, Rockland, Lawrence, Pittsfield, Eaton and Holland, except for one or two clones per township that were too large to spray easily. These same townships were sprayed in 2005 and 2007 (except for Eaton which was new this year). Many townships were sprayed in 2006, but some were missed due to lack of manpower. The clones south of Allouez Avenue have already been sprayed as of the writing of this report.

Dense stand of phragmites near shoreline

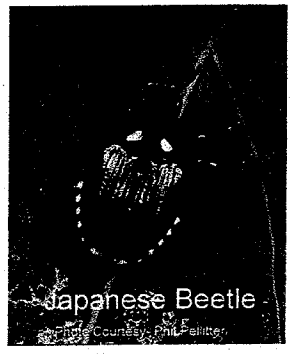
Our program has been using glyphosate at 2% concentration. The spraying has been done in late July and August. We have had to do small spot spraying the year after initial spraying, but this has not been too difficult. Native species have begun to grow back in some clones. The predominant species are jewelweed, cattails that are missed in spraying, blue vervain, and swamp milkweed. So far very few sedges have been observed. Invasives are also coming in, including reed canary grass and Canada thistle. These will need to be removed.

Using 2% glyphosate has been setting clones back by 95% or so. Glyphosate has not, however, been effective at killing phragmites 100%. We have had to re-spray the same clones year after year. We are hoping to be able to try Habitat next year and get a better result.

In previous years, we have treated phragmites clones by tying the canes into bundles, cutting them, and treating the cut surface with 20% Glyphosate. This is time consuming but may be necessary where phragmites is growing along with native plants.

In 2010 all the Phragmites clones that have been sprayed in the past will be monitored and any re-growth of phragmites will be sprayed.

Japanese Beetles on the Move



In 2009 we continued to monitor Japanese beetle populations. On the west side of Green Bay we placed 21 traps and on the east side, we placed 3 traps, and one trap in Suamico.

Presently, the focal point of the infestation on the west side seems to be Colburn Park. By August 23 we had caught more than 20,000 beetles there.

Unfortunately the beetles are expanding their range. We are finding more on the east side than before and in August a large population was found in Suamico in 2007.

Japanese Beetle Pheromone Trap

Reed Canary Grass Prevalent in County

A large infestation of reed canary grass. Photo by Kelly Kearns.

This plant probably poses as great a threat as any invasive in Brown County. Reed canary grass (*Phalaris* sp.) spreads both by seed and rhizomes, is adapted to a wide range of conditions, mostly in wetlands, but grows on well-drained soil as well. It is extremely competitive with native plants and is still being planted by some people on low ground for forage and along highways to stabilize the soil.

This plant is very prevalent, almost ubiquitous, and there are no easy selective controls. Therefore, this program has not worked very much with it aside from spraying the plants on the property behind the Ag & Extension Service Center in Green Bay.

Knowing the threat it poses to plant biodiversity, our program does eventually need to address the control of reed canary grass. Control methods might involve a hand-held wick applicator containing glyphosate, or selective herbicides which might control Phalaris without killing sedges or broadleaf plants.

Other sources suggest using one or more of the following: spraying with glyphosate very early in the spring while the cool season Phalaris is growing and the warmer season natives are still dormant; cutting the Phalaris at flowering to avoid seed production; and cutting Phalaris in mid-September and spraying re-sprouts in October, when the Phalaris is growing well in the cool weather and the natives have been knocked back by the cutting and frosts.

In mid-September 2007, I cut an area of reed canary grass slightly more than 1000 square feet behind the Ag & Extension Service Center. In mid-October I sprayed it with 2% glyphosate, after the reed canary grass had re-grown. In February, I broadcast seed of swamp milkweed, great St. Johnswort, bergamot, meadow rue, New England Aster, Joe Pye-weed, boneset, and a mixture of sedges. So far, this seems to have been successful. In the spring, no reed canary grass came up but there was lots of sedges, swamp milkweed and some Eupatorium (it's not clear to me yet if it is boneset or Joe Pye-weed). Weed problems so far have not been severe. Some of the reed canary grass is returning, but it did not flower this year. Hopefully another fall cutting and spraying will take care of it. Foxtail barley (*Hordeum jubatum)* has been a problem, but I sprayed Poast on the area. It seems to be under control and the Poast seems to have had no effect on the broadleaf plants nor the sedges.

In 2008 I repeated this technique on the rest of the reed canary grass behind the Ag & Extension Service Center, cutting in mid to late September and spraying on October 30th. This allowed most of the reed canary grass to be killed and many sedges to come through in the spring. The cut reed canary grass was raked off the site and that fall native wildflower seed was broadcast on the ssoil surface. In the summer of 2009 not all of the reed canary grass was killed, but definitely the majority. The few Phalaris flowers that were produced were cut off and re-flowering did not occur. While many sedges survived this treatment, I was disappointed that not many wildflowers have yet become established.

In the above-mentioned area behind the Ag & Extension Service Center, there was also some phragmites and narrow-leaved cattails but neither of them were killed by this treatment.

Japanese Knotweed Hard to Eliminate

In the fall of 2007, Heather Gentry, with funds from WDNR, sprayed three clones of Japanese knotweed (*Polygonum cuspidatum*) using glyphosate. The patches were knocked back considerably but not eliminated. In the fall of 2008 and summer of 2009 these clones were sprayed again. This plant is behaving much like phragmites. Glyphosate suppresses the clones but does not eliminate them completely. Another herbicide should be tried.

Japanese knotweed leaves and flowers

Crownvetch Thriving in Sunny Sites

This year, we also worked a bit with crownvetch (*Coronilla varia*), a species that is becoming a large problem in sunny sites such as the "St. Norbert Prairie" and parts of the Baird Creek Parkway. In late July 2008, a small section was sprayed with 2,4-D but was not effective.

The WDNR website recommends mowing in June and late August to prevent seeding and to retard growth during late season leaf-out. Spraying with 2,4-D in early spring is also recommended. The website also mentioned applications of glyphosate (non-selective) in early spring and a follow-up in the fall. Transline and Escort were also recommended, with no reference to application time.

In September 2008, I intended to try spraying crownvetch and was surprised that I couldn't find any that still had leaves. On October 31st I returned and was even more surprised to see that each plant had produced a small stem and a few leaves. I sprayed these with 2% glyphosate and in the spring these plants were no longer present.

On July 9th 2009 I also sprayed crownvetch with 1gram/gallon Escort. As of August 19th the area sprayed appears completely dead. If Escort is proven effective, crownvetch areas could be planted with native grasses since Escort is broadleaf specific.

Crownvetch on hillside.
Photo by Elizabeth Charapata

Fighting Perennial Pepperweed

In 2009 we also continued to work with perennial pepperweed (*Lepidium latifolium* L.) which is a rhizomatous member of the mustard family from Europe. This plant invades sunny areas such as pastures, roadsides and prairies. Perennial pepperweed was first found in Wisconsin in 2007 by Mark Renz from UW Madison while he was monitoring the garlic mustard herbicide trials in the Bay Beach Wildlife Sanctuary. Specimens were sent to the herbaria at UWGB and UW Madison. Our goal is to eradicate the plant, so in 2007 we tied, cut and treated all the flower stalks with 20% gyphosate and sponged the same herbicide onto all the young plants we found. In fall 2007, all the rosettes that could be found were sprayed with glyphosate. In the early spring 2008, rosettes were sprayed again with glyphosate and in July the flowers were cut off and any plants that bloomed and the rosettes were sprayed with 2,4-D as recommended by Mark Renz. Kelly Kearns from WDNR in Madison gave us funds to buy Escort, which will be used in the future since it is broadleaf specific and has some pre-emergent properties. We will monitor the site frequently and spray any new plants as they appear.

Poison Hemlock Found in Baird Creek Parkway

Poison hemlock (*Conium maculatum*) is a biennial (winter annual?) broadleaf plant which is invasive and toxic to human beings. Poison hemlock does not seem to grow many places in Brown County but Dr. Matt Dornbush from UWGB has observed the plant becoming very invasive in Indiana and was concerned that it might invade the rest of the Baird Creek Parkway where it is presently found. For these reasons, we decided to try to control the plant this year.

Many non-native plants remain green late in the fall, so I was hoping to be able to spray the plant in September. I was surprised to find all the poison hemlock dormant at this time. I returned on October 31 and found the poison hemlock green and growing again, so I sprayed it with 2% glyphosate. The spraying seemed to be effective because no rosettes (which would have flowered in 2009) came up, but the ground was covered with seedlings. These seedlings were sprayed very early in the spring, once again with 2% glyphosate, and almost all were killed. 2,4-D was also used, but was much less effective. After spraying, no more poison hemlock seeds germinated, although I anticipate more germinating in the fall.

Next spring, I hope to spray the poison hemlock as soon as the seeds sprout, and plant a prairie seed mix on the site, in the hope that we can spray the hemlock every spring before the prairie species have come up, and in this way restore the site.

Japanese Hedge Parsley

In the fall of 2008, Japanese hedge parsley (*Torilis japonica*), was found growing on private land in Brown County.

This plant is an invasive herb from Asia which can dominate areas in shade or full sun. So far here in Green Bay, it seems that Japanese hedge parsley prefers light shade.

This is one of the few times that Japanese hedge parsley has been found in this part of the state. It does not seem to be widely distributed yet in Brown County, although there are several acres of it growing on private land adjacent to the Baird Creek Parkway, with a few small patches growing inside the parkway. We are hopeful to be able to prevent its further spread into the parkway itself.

This summer, we attempted to control Japanese hedge parsley in three ways: cutting with a walk-behind brush cutter, spraying with Escort herbicide and spraying with 2,4-D. All three treatments were done on July 9th, when the plants were in early bloom.

As of August 19th, the cutting seems to have been effective, but we will continue to monitor the site into the fall. The only plants that were able to re-flower were those that had been cut longer than eight inches. During years with more precipitation the plants might be able to re-flower. If cutting works, it will have the advantages of not killing most of the existing vegetation which would provide competition for the Japanese hedge parsley, and some sites could be cut quickly and easily with large machinery.

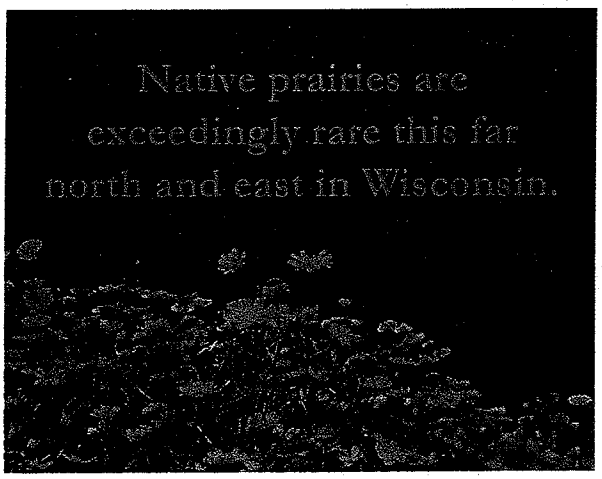
We chose to attempt control with 2,4-D and Escort because they are broadleaf specific herbicides and potentially the hedge parsley sites could be planted to native grasses and still sprayed for hedge parsley. As of August 19th, the Escort has killed the plants and seems to have prevented seed formation. Escort also killed rosettes and did not kill the grasses on the site. 2,4-D did not kill rosettes, only stunted the flowering plants, and they still set seed.

Japanese hedge parsley is a concern for the Baird Creek Parkway because it grows well in savannas and edge habitats (hence its common name "hedge" parsley) and there are plans to manage part of the parkway as savanna, which could favor the spread of this species. In addition, the seed of this species is like a small bur which adheres to clothing and fur, so its spread could be rapid.

In the spring we hope to spray Japanese hedge parsley with glyphosate before native plants are growing to avoid killing plants that might compete successfully.

Restorations

Many of the sites we work on in this program have relatively few native species. Since our main goal in this program is the preservation of biodiversity, it makes sense for us to try to restore some of the native species. Additionally, it seems that a highly diverse site with a large number of native species is a good defense against future invasion by exotic species. This year our main attempt at restoration has been behind the Ag & Extension Service Center where reed canary grass was sprayed. We hope to be far more involved in restoration in the future.



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Brown County 4-H SET Program

UW-Extension Events

The Brown County 4-H program is reaching underserved youth in Green Bay and neighboring communities through the new 4-H SET Club. SET is the acronym for science, engineering, and technology and is the educational focus for this newly formed club. While all 4-H projects provide hands-on experiences and help youth develop life skills, this club emphasizes scientific and critical thinking, while youth learn new skills in technology.

It has been reported that only 18 percent of US high school seniors are proficient in science (NAEP 2005) and a mere 5 percent of current US college graduates earn science, engineering, or technology degrees compared to 66 percent in Japan and 59 percent in China. Couple these statistics with the fact that current scientists and engineers are retiring in record numbers, and it becomes clear that America faces a crisis in its ability to keep up with increasing demand for professionals trained in these fields. With its direct connection to the research and resources of the 106 land-grant universities and colleges of the Cooperative Extension System, 4-H is committed to playing a strategic role in helping youth develop an interest, increase their knowledge, explore careers, and learn skills in science, engineering, and technology.

In the Brown County 4-H SET Club, youth members are working in pairs to build robots, learn GPS technology, and participate in a GIS service learning project that will benefit our community. Currently these youth are building robots using LEGOS Mindstorms NXT robot kits, obtained through an Eastern District Innovative grant. These kits include a variety of parts including motors, sensors, and a "brick" which is the robot's programmable brain. Using laptop computers obtained through a Brown County 4-H Leaders Association mini-grant, and NXT-G software, 4-H members are learning skills to program their robots to maneuver in a pre-determined way, respond to specific commands, and gather data through a variety of experiments. Additionally, youth are learning about career opportunities in SET and how robotic technology is currently being used. Brown County also organized and hosted a train-the-trainer robotics workshop for 31 4-H staff and volunteers from10 Wisconsin counties. An Environmental Science Research Institute (ESRI) grant proposal has also been submitted to obtain resources and software to support GPS/GIS activities that will begin in early 2010.

Of the thirteen youth who are currently enrolled in the project, ten of them have not previously participated in 4-H and all of the members are from the metro Green Bay area. Leadership for this club is being provided by the newly formed SET Team that includes experienced 4-H adult and youth leaders, local technical professionals, newly recruited leaders, and the 4-H Youth Development Educator. The objectives of the 4-H SET Team are to provide both educational experiences for youth in science, engineering, and technology and to help this new club and project area be sustainable in the future.

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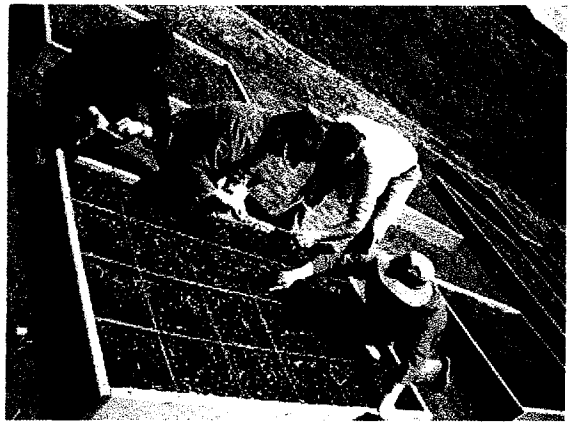
Square Foot Garden Demonstration Project

One of hottest trends of this year's home landscape projects was vegetable gardening. Vegetable gardening helped many homeowners save considerable dollars in their food budget during this tough economic market. With the help of N.E.W. Master Gardener Volunteers and interns, Brown County UW-Extension took a lead this year in promoting the importance of vegetable gardening by demonstrating square foot gardening at the Green Bay Botanical Garden. A square foot garden is a simple and versatile system of vegetable gardening that conserves space, is easy to manage, is portable in nature and doesn't require any roto-tilling. This style of gardening is well suited for all adults living in urban settings who don't have sufficient space for a conventional garden.



Planting of onion sets and spinach seeds by the Master Gardener Volunteers and interns at the Square Foot Demonstration Project.

A total of 47 vegetable varieties including tomatoes, peppers, eggplants, onions, spinach, dry beans and edible soybeans were grown in this garden. Handouts on the nutritious value of different vegetables and on how to start a square foot garden were distributed at numerous events at the garden. A display of all the vegetable varieties and a tasting event were hosted this fall by the N.E.W. Master Gardener Volunteers and interns at the Botanical Garden . Next year, the N.E.W. Master Gardener Volunteers are looking forward to integrating a wheelchair accessible feature in the demonstration garden and to promoting the square foot garden in other communities.

Invasive Species Overview

The main goal of the Brown County UW-Extension Invasive Species Program is to help maintain plant biodiversity. This is done through the control of invasive species. Invasive species are usually from other geographic regions and they are capable of growing and reproducing in natural areas, replacing native plants. By controlling invasives, we hope to favor native plants, allowing them to re-establish their diverse plant communities and the other organisms that depend on them.

Several objectives were accomplished in 2009. One of the more significant of these was the control of garlic mustard at 36 sites throughout Brown County. There are a total of 55 sites where garlic mustard is present and many of them are close to high-quality natural areas where the plant's spread is being effectively prevented. Several sites are very small – only a few square feet – where the plant is being "nipped in the bud."

This year, we also worked with alternative methods of control including cutting the garlic mustard in early flower, spraying the garlic mustard while bolting on low quality sites, and a large herbicide trial was established through UW Madison in the Bay Beach Wildlife Sanctuary.

In 2009, we sprayed all the Phragmites that could be seen from the road in the townships of New Denmark, Glenmore, Morrison, Wrightstown, Ledgeview, Rockland, Lawrence, Eaton and Holland, except for one or two clones per township that were too large to spray easily.

We also worked this year with the control of buckthorn (both common and glossy) and honeysuckle. This was primarily done in Lost Dauphin Park, Pulaski, and in the Baird Creek Parkway.
The Invasive Species Program addressed one major insect threat. Twenty-Three Japanese beetle traps were distributed to monitor their population in Green Bay. Unfortunately, the beetles are spreading and a large population was found in 2007 in Suamico.

On August 3, 2009 a group of Baird Creek Parkway Interns did a botanical survey of a remnant prairie adjacent to Lost Dauphin Park in Lawrence Township. The prairie is owned privately but the township has shown some interest in buying part of the property to expand the area of Lost Dauphin Park.

By controlling invasives, we hope to favor native plants, allowing them to re-establish their diverse plant communities and the other organisms that depend on them.

A species list was made and the coefficient of conservatism was calculated to show how ecologically valuable the prairie is. The coefficient of conservatism was 31.60 and according to the Pleasant Valley Conservancy and an assessment by Michigan workers a coefficient of conservatism of 35 is considered floristically important for the state.

Native prairies are exceedingly rare this far north and east in Wisconsin, especially in a county as densely populated as Brown. For all these reasons, the recommendation for Lawrence Township is that they acquire this property if they are able.

In addition, work continued on fencing Canada yew plants that were found in Pulaski to protect them from deer. Canada yew is listed as a species of concern in Wisconsin.

UW-Extension Programming Efforts

Food and Schools Forum Discusses Healthy Food Choices in NE Wisconsin Schools

The purpose of the Food and Schools Events is to bring together people in the community who are all working together for the same goals: to instill healthy eating habits in children at a young age and to teach children where their food comes from. By pooling everyone's efforts and using a variety of approaches, we will have a larger impact.

Forty-five individuals, representing 14 school districts across seven counties, gathered to discuss how to bring healthy food choices to schools in northeast Wisconsin.

The Food and Schools Forum, hosted by Brown County UW-Extension, allowed for discussion about current research projects and initiatives.

A follow-up event will be held in February 2010.

USDA Food Security Survey Underway

Most U.S. households have consistent, dependable access to enough food for active, healthy living – they are food secure. But a minority of American households experienced food insecurity at times during the year, meaning that their access to adequate food is limited by a lack of money and other resources.

Negative nutritional and non-nutritional outcomes have been associated with food insecurity in adults, adolescents and children including poor dietary intake and nutritional status, poor health, increased risk for development of chronic disease, poor psychological and cognitive functioning and substandard academic performance.

Beginning in 1998, the Brown County UW-Extension Nutrition Education Program in cooperation with the University of Wisconsin-Green Bay Social Work Professional Program conducted the United States Department of Agriculture (USDA) Food Security Survey. Since, the survey was conducted in 1999 and 2004. The food security survey is currently being conducted in Brown County with results to be available in spring 2010.

Senior level social work professional students attending the University of Wisconsin-Green Bay are conducting the survey at food pantries, Women, Infant and Children Supplemental Feeding Program Clinics (WIC) and other sites providing meals to limited resource individuals and families in Brown County. The goal is to have 600 respondents complete the survey.

After the results of the survey are shared, strategies will be identified in cooperation with community partners to address needs of individuals and families who are experiencing food insecurity.

While a food security survey is being conducted in Brown County, last week, the USDA shared results of survey looking at food insecurity nation-wide. The USDA monitors the extent and severity of food insecurity in U.S. households through an annual, nationally representative survey and publishes the results annually.

Results of the survey, show in 2008, 85.4 percent of U.S. households were food secure throughout the year. The remaining 14.6 percent (17 million households) were food insecure. These households, at some time during the year, had difficultly providing enough food for all their members due to a lack of resources. The prevalence of food insecurity was up from 11.1 percent (13 million households) in 2007 and was the highest observed since national representative food security surveys were initiated in 1995.

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